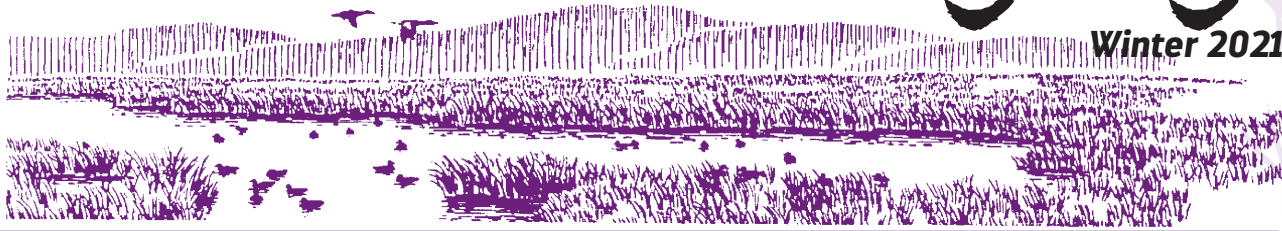


# The Flyway

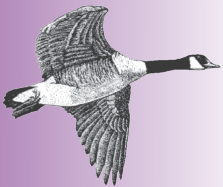
Winter 2021



Quarterly newsletter for Billy Frank Jr. Nisqually and Grays Harbor National Wildlife Refuges

## Contents

Duck butts.....	1
On the Wing.....	2
A Man of All Trades .....	3
A Different View ...	4
Join Friends of Nisqually NWRC ...	5
Seeking student art!.....	6



“For the health of our economy and our public lands, it’s critical that we work now to establish meaningful and deep connections between young people—from every background and every community—and the great outdoors.”

*(Former Secretary of the Interior, Sally Jewell)*

## Duck butts in the air and just don’t care

*By Dominique Rosario,  
Education Coordinator,  
Billy Frank Jr. Nisqually NWR*

Cooler temperatures, grey skies and rainy days are just some of the many signs that winter is here. As with any new season, change is upon us here at Billy Frank Jr. Nisqually National Wildlife Refuge. You don’t have to walk far to see how the new season has shaped the landscape. The ponds around the Norm Dicks Visitor Center and along the Twin Barns Loop Trail have filled with water and provided the perfect places for waterfowl to take advantage of new food to eat and places to rest. These flooded areas provide habitat for many organisms to survive during the winter months.

While passing by, you may watch as a Mallard or Northern Shoveler tips headfirst in the water with their butt in the air. Have you ever wondered what

these ducks are doing? This practice, known as dabbling, allows ducks to reach food beneath the water’s surface. The Northern Shoveler has one of the most specialized bills of all the dabblers and uses its wide shovel-like bill to scoop and sieve their food. If you’re lucky you might even witness the shoveler swimming in tight circles either alone or in a group. This creates a whirlpool effect that brings hiding organisms closer to the water’s surface for the ducks to eat.

Below the surface of the water is a whole world teeming with aquatic macroinvertebrates that are a favorite of many waterfowl. Aquatic macroinvertebrates are animals without backbones that are visible to the naked eye and live in streams, rivers, lakes, and ponds such as the ones on the Refuge. Often, these organisms are found attached to

*Continued on page 4*



*Mallards feeding, photo by: Art Pavey, USFWS*

# On the Wing

By Glynnis Nakai,

Project Leader, Nisqually NWR Complex

The U.S. Fish and Wildlife Service's Urban Wildlife Conservation Program (UWCP) was launched in 2012 to increase awareness of wildlife conservation and the National Wildlife Refuge System to those who have fewer opportunities to experience and enjoy public lands and wildlife. To garner broad support for conservation, the Service must provide a reason and opportunities for urban residents to find, appreciate, and care for nature in their cities and beyond. Engaging our urban neighbors and fostering a sense of stewardship reflects the heart of the urban wildlife conservation program.

The need for this outreach has long been recognized. It was during the Refuge System's first national conference (Conservation in Action Summit, Keystone, Colorado) in 1998 when priorities were defined to guide the Refuge System into the future. The result was a detailed strategy synthesizing the priorities for habitat and wildlife protection, restoration, management, and visitor programs. These strategies were documented in *Conserving the Future: Wildlife Refuges and the Next Generation*. This challenges us to enhance the relevance of the National Wildlife Refuge System and the U.S. Fish and Wildlife Service to a rapidly changing America. Building a connected conservation constituency requires connecting with the growing urban population to ensure that all Americans care about conservation. The Service is committed to accomplishing this by implementing the Standards of Excellence that resulted from the conference. These standards include:

- know and relate to the community
- urban people with nature
- build partnerships
- be a community asset
- ensure adequate long-term resources
- provide equitable access
- ensure visitors feel safe and welcome model sustainability.

I attended that Summit early in my career and admit, it was overwhelming! But here we are, 23 years later



and the Urban Wildlife Conservation Program is a regular conversation within the Service and a priority for seeking ways to support refuges so they have the resources to implement their urban programs. National Wildlife Refuges are reaching underrepresented communities and engaging a diverse audiences within and beyond their boundaries. In 2014 Nisqually National Wildlife Refuge Complex staff prepared an urban proposal, *Wild About Nature: Creating New Voices for Conservation*, which serves as

our plan to reach new audiences, establish new partners, and foster existing partners. This year, we further defined strategies to meet the Standards of Excellence. This process acknowledged that we already provide opportunities for underrepresented audiences; however, we can be more pro-active in our approach and implement more actions within our urban plan with existing resources. We will be purposeful in our outreach efforts to address barriers that prevent urban communities from visiting the Refuge and connect with community leaders to gain an understanding of their interest and needs for youth and adults to connect with nature. Similar to the Conservation Summit, it is challenging us to be focused, creative, and intentional in our connections which will, with time, result in more opportunities for urban residents to connect with nature and develop the next generation of diverse conservation leaders.

Refuge volunteers and Friends of Nisqually National Wildlife Refuge Complex members come from many communities around our Refuge and can contribute to our outreach efforts. If you have suggestions on community leaders, community groups, or potential partners to collaborate on projects, please let us know ([nisqually@fws.gov](mailto:nisqually@fws.gov)). Without public awareness and support, our conservation mission will not succeed, and the Urban Wildlife Conservation Program was developed to direct opportunities for all in support of justice, equity, diversity, and inclusion.✂

"For the health of our economy and our public lands, it's critical that we work now to establish meaningful and deep connections between young people—from every background and every community—and the great outdoors." (Former Secretary of the Interior, Sally Jewell)

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**Save trees, think green.**

To receive *The Flyway* electronically, email  
[nisqually@fws.gov](mailto:nisqually@fws.gov)



# A Man of All Trades

By Susie Hayes,  
Flyway Editor and Friends of Nisqually board member

It was a blustery November storm that blew me into Bob's office. He greeted me at the door, a smile, "Sorry the power is out." Well, we in the Northwest just move forward as best we can power or no power. My hour with Bob flew by, we talked about many things, and I was impressed by the knowledge he had of waterfowl habitat and all the habitat on the Refuge for that matter. Bob is a man who looks you in the eye and speaks with clarity as I realized he truly was, "a jack of all trades and a master of none, but oftentimes better than a master of one."

Growing up in the country outside of Centralia, Bob Smith's family owned a hunt club for upland birds and waterfowl hunting. They managed their land to promote food sources and habitat for these birds. Bob grew up relying on the winter rain for seasonal wetlands and consequently is very in tune with the seasonal rains. He was driving tractors at 10 years old, guided his first fishing trip at 15, and continued guiding hunting and fishing trips as he grew up. In high school, his football team played for the state championship in the King Dome. Even at 55 he competed and medaled in the Masters Track and Field Meet in hammer throw, discus, and shotput, a moment he is very proud of.

Bob began working at the Nisqually National Wildlife Refuge Complex in 2001 as a part-time employee with two other permanent employees, and one other part-time person. He was hired for maintenance and habitat preparation work. Now Bob is the Lone Ranger for Nisqually National Wildlife Refuge Complex which includes Billy Frank Jr. Nisqually, Grays Harbor Refuge and the Black River Unit! He credits the Washington Conservation Corps

Crew of six, that work four days a week, with being able to keep up with much of the habitat work.

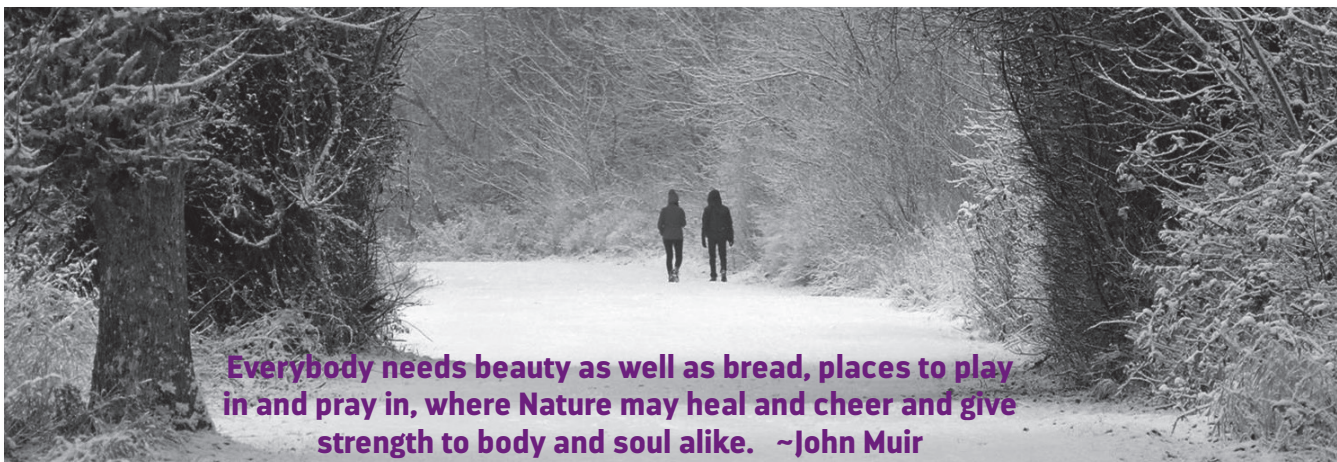
Public safety and habitat preparation is Bob's primary focus. Public safety includes maintaining and repair-

ing the boardwalks after many a cottonwood tree or a maple limb has fallen, damaging sections of the boardwalk. Trees that might be a danger to the public also need to be identified and removed. His greatest feat was repairing the Riparian Trail bridge that was destroyed during windstorm damage. He engineered a fix using cables between trees and chains attached for hoisting large timbers, he removed the old bridge and set in place two new huge 40-foot beams. Not an easy fix but with Bob's resourceful know how (jack of all trades), he got the job done.

Mowing is Bob's real expertise.

He has a wealth of experience on what it takes to attract the waterfowl. The mosaic he creates for the seasonal winter wetland with mowing, discing, and plowing is to set the canary reed grass back, create small hummocks, and to maximize food sources for the wintering waterfowl. Then come the winter rains that usually start mid-October to beginning of November that flood the area, with a little help from pumping water from the Red-tailed Hawk well. As a result of the preparation of the 150 acres of seasonal wetlands, smartweed and plantain emerge as well as seeds for the tens of thousands of waterfowl to winter and forage in the wetland. The Black River Unit also needs his attention, cutting back the canary reed grass to enhance Oregon Spotted Frog habitat for egg laying, tadpole survival in seasonal wetlands, and connection to permanent water.

"It's really neat to be able to work and help with a resource I have used my whole life." Bob really is the perfect man for the job.✈



**Everybody needs beauty as well as bread, places to play in and pray in, where Nature may heal and cheer and give strength to body and soul alike. ~John Muir**

## A Different View

By Zoie Anderson, Education Coordinator,  
Grays Harbor National Wildlife Refuge

If you see a group of students exploring the trails at Billy Frank Jr Nisqually National Wildlife Refuge or Grays Harbor National Wildlife Refuge, they most likely will have a pair of binoculars around their necks. Each student gets the opportunity at the Refuge to use this amazing scientific tool while they investigate nature. Thank you so much to the Friends of Nisqually for putting a pair of binoculars in each of the kids' hands that participate in the environmental education programs I teach. Something as simple as getting to look through a pair of binoculars is an incredible opportunity.

For the Shorebird Education Program, each of the 4th graders in the program are taught how to use the binoculars during their first lesson. They will get to use these skills on a field trip to Grays Harbor National Wildlife Refuge later in the spring to witness the migrating shorebirds. The students I teach are so excited about being able to use the binoculars. I love hearing the excited squeals and giggles while practicing their newfound skill. At the beginning of the lesson, they all are shown of how to fit the binoculars to their eyes and how to use the focus. Some pick it up with no problem,

a few others need a little help. One of the kids I helped individually said that usually their big brother fixes the binoculars for them. I pointed out now they were going to be able to work the binoculars all on their own, and they would not need help anymore! The kids had big grins while watching a gull through their binoculars, bigger than life, which flew over their heads during the lesson. These skills and experiences might seem small but are so spectacular for the kids.



*Kids look through binoculars spotting shorebirds on their fieldtrip during spring migration. Photo by: USFWS*

They are amazed that they can see something so far away and it appears so near! With one of my students who was struggling at first to figure out the focus was finally successful and spotted a new bird flying by. After the lesson as I was putting the binoculars away, she was jumping up and down so happy that she spotted that bird on her own. She was astonished at how well she could see the details on the bird! "This is so much fun! You can see things so much bigger through the

binoculars! Thank you!" What a joy it is to open a new way to look at the birds!

It will never get old teaching these students how to use binoculars and hearing "ooohs" and "aaahs" as they look through the binoculars for the first time, learning and exploring nature with new eyes. ✨

## Duck butts

From page 1

rocks, vegetation, logs, or sticks and are therefore hard to spot. Aquatic macroinvertebrates include crustaceans and worms, but most are aquatic insects. Some of them have legs and some of them do not. Some will grow up to fly like dragonflies and others will live their entire lives in the pond. Beetles, mayflies, caddisflies, and snails are just some of the many macroinvertebrates that can be found throughout the Refuge.

The abundance of macroinvertebrates in our ponds provide a vital food source for wintering waterfowl. The majority of a duck's diet consists of plants and grains which are high in carbohydrates and energy but low in protein. Invertebrates are high in protein and are a key nutrient source during the cold winter months when calories are precious. One of these nutrients is calcium which is found in invertebrates with a hard exoskeleton such as snails and is essential for egg laying female ducks to produce eggshells.

The loss of aquatic macroinvertebrates would have a huge effect on the winter diet of ducks and the entire ecosystem they are a part of. Since aquatic macroinvertebrates live in water most of their lives, they are helpful in determining the health of the water they live in. Being less mobile than ducks does not allow for the opportunity to escape polluted waters. Many species of mayflies, caddisflies, and stoneflies are very intolerant of pollution and can only survive in healthy water. Therefore, their presence is typically a good sign for the water quality and the rest of the ecosystem.

While aquatic macroinvertebrates can be hard to see from looking at the water from above, understanding how they connect to their ecosystem can enhance your experience while exploring Billy Frank Jr. Nisqually National Wildlife Refuge. Observing ducks feeding on the invertebrates beneath the surface of the ponds and wetlands along the Twin Barns Loop allows for the opportunity to pause and reflect on the importance of even the smallest critters. ✨



# New and Renewing Friends Members/Winter 2021

## Student/ Senior—\$15

Geoff Apgar  
Gary Bostwick  
Mary Brasseaux  
Ruth E. Brigden  
Karen Bryan  
Donna DeVore  
Lynne Edele  
Loretta Jones  
Dana M. Klatt Risch  
Ernest & Diane Malick  
Becky Russell  
Holly B. Smith  
Kare Walsh  
Joelle Worthley

## Individual—\$25

Donald Ayers  
Sheri Clark  
Grace DeMeo

Kathryn N. Fox  
Faith Garrick  
Cori Halverson  
Jean Hillmer  
Karen Hook  
Wendy Lippmann  
Jean MacGregor  
Denise McDermott  
Sabin Russell  
Lois & Steven C. Ward

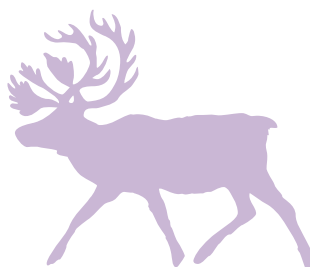
## Family—\$50

Atley & Sheila Ralston  
Mike Baldwin  
George & Sandra Bush  
Len & Linda Elliott  
John & Donna Keith  
Thomas & Barbara Malone  
Mark McKechnie  
Gina Massoni

Andrew Mauro  
Dan Tufford  
John & Elly Walkowiak  
Kathy & Cara Woodward

## Supporting—\$100

Kim Adelson  
Len Barson  
Christine D. Galvin  
Basil & Verena Grieco  
Elizabeth Hansen  
Susan Hayes  
Gerald Julian



Victoria Lincoln  
David & Laura Nicol  
Marilyn Pratt  
Kristin & Michael Stewart  
Jean Takekawa  
Kristina Wetzel  
Bill & Carole Wieland  
Dolly Yates

## Partner—\$250

Christopher Bauermeister  
Carol Else  
Phyllis J. Freitas  
Jack & Donna Rice  
Doug & Lillian Ryan

## Patron—\$500

Diane Malone

## Benefactor— \$1000

Joyce T. Ogden

# Join Friends of Nisqually NWRC!

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Email \_\_\_\_\_

- ☐ Please send information on making Friends of Nisqually NWRC a beneficiary of my estate.  
☐ Check here to receive an electronic version of *The Flyway* newsletter by email.

## Individual/Family Memberships

- ☐ \$15 Student/Senior  
☐ \$25 Individual  
☐ \$50 Family  
☐ \$100 Supporting  
☐ \$250 Partner  
☐ \$500 Patron  
☐ \$1000 Benefactor

## Corporate/Business Memberships

- ☐ \$250 Business Sponsor  
☐ \$500 Community Partner  
☐ \$1000 Sustaining Business  
☐ \$2500 Corporate Patron  
☐ \$5000 + Corporate Benefactor

**Friends of Nisqually NWR Complex** is a 501(c)(3) nonprofit organization established in 1998 to promote conservation of the natural and cultural resources and fund educational and outreach programs at **Nisqually National Wildlife Refuge Complex**.

Please make checks payable to: Friends of Nisqually NWRC, 100 Brown Farm Rd, Olympia, WA 98516

**Your tax deductible contribution will help preserve the unique habitats, fish, and wildlife of the Nisqually Delta and the Grays Harbor Tideflats.**

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*... conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people...*

**Refuge Seeks Student Art to Celebrate  
Nisqually Watershed!**

Crafty with crayons? Partial to paints? Marvelous with markers? Then consider putting your skills to paper and making art for this year's Nisqually Watershed Poster Contest!



*Salamander, photo by Michael Schramm, USFWS*

From Mount Rainier to the Nisqually Estuary, the Nisqually watershed is a wondrous place full of wild creatures that call this special place home. The Refuge invites all kindergarten through fifth grade students to share their own personal celebrations of these amazing creatures by creating a poster to contribute to conservation through the arts!

Each year a theme is chosen to highlight a special part of the watershed. This year's theme is Amphibians of the Watershed. We encourage students to be creative and use whatever medium they choose as

research amphibians to create a poster that celebrates this year's theme.

If you know a student who might be interested please email us at [nisquallyeducation@fws.gov](mailto:nisquallyeducation@fws.gov) to receive a copy of the poster contest packet and contest entry form.